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**DOCUMENT No. 25.**

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# BOARD OF ALDERMEN,

FEBRUARY 4, 1851.

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The minority of the Special Committee on Gas Contracts, presented a report thereon, which was laid on the table and ordered to be printed.

D. T. VALENTINE, *Clerk.*

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The undersigned, of the Special Committee in relation to Gas Contracts, differing from the majority of said Committee, respectfully

## REPORTS:

That the other members of the Committee, with Alderman Wood, constituted the entire Committee to whom the subject was referred, at an early period of the year 1850. A report was made on the 11th December, 1850, which, with the resolution attached, was adopted the same evening, and

being immediately concurred in by the Board of Assistant Aldermen, required only the signature of his Honor the Mayor to have become binding as a contract between the city and the New York Gas Company, said company assenting.

But the Mayor saw fit to veto the resolution, and to send it back to this Board for reconsideration. Accordingly it was re-committed, with the objections of his Honor the Mayor, for reconsideration; at which time, Alderman Wood, of the Special Committee, having ceased to be a member of the Board, the undersigned was appointed, by resolution of the Board, to serve on the Committee in his place.

At the meetings of this Committee, the undersigned found it impossible to concur in the views expressed by the majority, and was forced to dissent from their report; but he considers that the importance of the subject justifies him in presenting to your Honorable Body his own suggestions, together with the facts which form the basis of his opinions.

The Committee has recommended that a new contract be made with the New York Gas Company, to light the public lamps, for a term of years, on specified conditions.

The undersigned holds that the public interest requires that no new contract should be made with the gas company, unless it contains special provisions compelling said company to furnish good gas, at a fair price, to private consumers, whose interests, the undersigned thinks, the authorities are bound to protect with as much solicitude as they show for the proper lighting of the public lamps.

The consumption of gas, in lighting the public lamps, is so inconsiderable, when compared with the demands of private consumers, that it is of small importance to the gas company whether they receive much or little for such supply ; as they could well afford to light them for nothing, to have the use of the streets for their main pipes, to reach their private consumers ; and even then to furnish the gas at a less price than they now pay, as is clearly shown by the experience of Philadelphia during the last ten years.

To sustain this position, the undersigned begs to call the attention of your Honorable Body to the following yearly statement of the operations of the Philadelphia Gas Works, which have been carefully compiled from the published annual reports of the trustees of those works, to the Select and General Councils of the city of Philadelphia.

ON THE 1ST OF MARCH, 1841,

The city of Philadelphia took the gas works from the company established in 1836, as a private corporation for the manufacture of gas, for which the company had been charging, from 1836 up to that time, at the rate of 35 cents per 100, or \$3 50 per 1000 cubic feet. The stockholders received, in full of all claims in the profits of said company, city stock, bearing interest at six per cent. The capital stock of the gas works, during the year 1841, was \$524,000, of which a large portion had been added during the year, for the extension of the works. The city continued to furnish gas at the same price, viz : 35 cents per 100, or \$3 50 per 1000 cubic feet, during the year 1841 ; and after paying interest on the capital, and all expenses of manufactur-

ing and purchase of materials, wages of workmen, salaries of officers, contingencies and repairs, the surplus profits for that year amounted to \$40,487 24, less suspended debt of \$1,536 23—being the amount of gas bills unpaid—leaving a net surplus, to this time, of \$38,951 01.

#### DURING THE YEAR 1842,

The city continued to furnish gas at the same rate, viz: 35 cents per 100, or \$3 50 per 1000 cubic feet. The capital, this year, was increased \$16,900, making \$540,900 in all of capital stock of the works, of which the surplus profits, after paying interest on capital, all expenses of materials and manufacture of gas, including wages and salaries, contingencies and repairs, amounted to \$52,610 86—making, up to this time, a surplus of \$93,098 10, less suspended debt of \$2,065 62, for gas bills unpaid; of this, \$60,399 25 was invested in the Sinking Fund, leaving a sum of \$30,633 23, not yet invested.

#### DURING THE YEAR 1843,

The price of gas continued at the same rate of 35 cents per 100, or \$3 50 per 1000 cubic feet. The capital stock this year was not increased; but the works were extended by means of the surplus profits, which, after paying interest on capital, all expenses of the materials and manufacture of the gas, including wages of workmen, salaries, incidental expenses and repairs, amounted to \$52,418 77—making, up to this time, a surplus of \$145,516 87, less suspended debt of \$1,830 04, for gas bills unpaid. There is invested in Sinking Fund, at this time, \$97,600, of gas and

city loans, leaving the sum of \$46,091 58, not yet invested. Up to this time, forty-five-and-a-quarter miles of main pipes have been laid through the streets.

#### DURING THE YEAR 1844,

The city supplied the gas at the same price, viz: 35 cents per 100, or \$3 50, per 1000 cubic feet, payable quarterly. The capital this year, was increased \$59,100, for extension of works, making the entire capital stock issued by the city \$600,000, of which the surplus profits, after deducting interest on capital, expenses of material and manufacturing of gas, wages of workmen, salaries of superintendent and clerks, incidental expenses and repairs, amounts to \$60,692 30, making up to this time, a surplus of \$206,209 17 less suspended debt, for amount of unpaid bills, \$1,957 44. There is invested in sinking fund of the gas works \$181,949 90, and the balance forms part of the contingent fund for the enlargement of the works, extending the distribution, &c., as directed by ordinance of June 17, 1844. Sixty-four and one-fifth miles of main pipes have been laid through the streets to the end of this year.

#### DURING THE YEAR 1845,

The gas was supplied by the city, at the same price of 35 cents per 100, or \$3 50, per 1000 cubic feet, until March 1, when it was reduced to 30 cents per 100, or \$3 per 1000 cubic feet. The bills are paid quarterly. The capital stock was not increased this year; but the works were extended by means of the surplus profits, notwithstanding the above reduction of the price of gas. The amount of surplus profits this year, after paying interest on capital, and all

expense of the materials and manufacture of gas, wages, salaries, incidental expenses, and for repairs, was \$55,916 90, making up to this time, a surplus of \$262,126 07, less suspended debt, for bills unpaid of \$1,729 89. Of this surplus, \$205,633 57 belongs to the sinking fund, and the balance, less the amount of the suspended debt, \$1,729 89, equal to \$54,492 50, forms the contingent fund for the extension of the gas works, and extraordinary repairs and renewals, as provided for by the ordinance of June 17, 1844. Sixty-seven and two-third miles of main pipes were laid in the streets, up to the end of this year.

#### DURING THE YEAR 1846,

The price for gas was continued the same, viz: 30 cents per 100, or \$3, per 1000 cubic feet, until the 1st of February, when it was reduced to 28 cents per 100, or \$2 80 per 1000 cubic feet, at which price it was supplied, until July 1st of this same year, when it was again reduced to 25 cents per 100, or \$2 50 per 1000 cubic feet, payable quarterly, and was supplied at that price throughout the balance of that year. The capital stock was not increased this year; but, notwithstanding the two reductions in the price of gas during the year, the works were extended by means of the surplus profits, which, after deducting interest on capital, cost of materials, and manufacture of gas, wages of workmen, salaries of officers, incidental expenses and repairs, amounted to \$51,628 37, making up to this time a surplus of \$313,754 44, less suspended debt, for amount of unpaid bills of \$1,426 45. Of this surplus \$229,805 57, belongs to the sinking fund, and the balance

less the amount of the suspended debt, \$1,426 45, equal to \$82,522 42, forms the contingent fund for the extension of the gas works, and extraordinary repairs and renewals, as provided for by the ordinance of June 17, 1844, and May 7, 1846. Of this last sum, \$70,497 49, have already been expended. Seventy-three and two-third miles of main pipes were laid to the end of this very prosperous year.

NOTE—Up to this time, all the stock issued by the city for the gas works, has been Loans 1, 2, 3 and 4, amounting to \$600,000, all additional capital, has been appropriated from yearly surplus profits to contingent fund, for the extension of works, and has thus formed an addition to the capital.

#### DURING THE YEAR 1847,

The price of gas continued the same; viz: 25 cents per 100, or \$2,50 per 1000 cubic feet. The capital stock was not increased by city stock, but the works continued to be extended by means of the surplus profits, which, after paying interest on capital, expenses of manufacturing and cost of materials, labor, salaries, contingencies and repairs, amounted to \$70,917 35, making up to this time, a surplus of \$384,671 79, less suspended debt of \$1,425 16. Of this surplus \$254,781 17, belongs to the sinking fund, and the balance \$129,890 62, less \$1,425 16, equal to \$128,465 46, is the contingent fund of the works, which has been applied for additions to the establishment. Seventy-six and two-fifths miles of main pipes have been laid to the end of this year.



## DURING THE YEAR 1848,

The price of gas was continued at 25 cents per 100, or \$2 50 per 1000 cubic feet, till September 1st, when it was reduced to  $22\frac{1}{2}$  cents per 100, or \$2 25 per 1000 cubic feet, which is practically still further reduced to consumers by a discount of 5 per cent. on all gas bills, if paid within 5 days after delivery, which brings the actual price down to  $21\frac{4}{10}$  cents per 100, or \$2 14 per 1000 cubic feet; at which rate it remains at the present time, all bills being paid quarterly. The capital stock was this year increased \$70,000 by issue of city gas stock for the extension of the works, making \$670,000 issued by the city to this time. The surplus profits after deducting interest on the above capital, and all expenses of material, manufacturing, wages, salaries, incidental expenses, contingencies and repairs, amounted to \$62,178 35, making up to this time \$446,850 14, less suspended debt for unpaid bills of \$1,544 35. Of this surplus, \$281,864 84 went to sinking fund, and \$163,440 85 to contingent fund. Seventy-nine and one-fifth miles of main pipes were laid up to the end of this year.

## DURING THE YEAR 1849,

The price of gas was continued at  $22\frac{1}{2}$  cents per 100, or \$2 25 per 1000 cubic feet, with 5 per cent. off, for payment in 5 days after delivery of bills, the bills being paid quarterly. The capital stock was increased this year \$100,000 by issue of city gas stock for the extension of the works, making in all \$770,000 issued by the city to this time; all additional capital having been appropriated from surplus profits to contingent fund for the extension of the



works, which has been added to the capital, and up to January 1, 1850, the amount of contingent fund so added is \$192,575 05, making total capital at that date \$962,575 05. The surplus profits this year, after deducting interest on the capital, cost of materials, and all expenses of manufacture, including wages of workmen, salaries of officers and clerks, incidental expenses, contingencies and repairs, amount to \$64,792 19, making up to this time \$511,642 33 surplus, less suspended debt \$1,862 50. Of this surplus, \$317,204 78 belongs to the sinking fund, and \$192,575 05 to contingent fund. Ninety miles of main pipes are laid in the streets at the end of this year.

#### DURING THE YEAR 1850,

The price of gas was continued at the same rates, viz : 22½ cents per 100 feet, or \$2 25 per 1,000 feet, and 5 per cent. off for immediate payments. The increase of capital stock this year was \$197,000, making in all \$967,000 of stock issued by the city. The surplus profits for this year, after paying interest on capital, and all expenses of material and manufacturing gas, wages to workmen, salaries, incidental expenses, contingencies and repairs, amount to \$57,244 07, making to the present time a surplus of \$568,886 40. Ninety-four and three quarter miles of main pipes have been laid up to the end of this year in the streets.

Thus it will be seen, that the profits of the works during nine years up to 31st Dec., 1849, are \$511,642 33, of which \$192,575 05 has been used in the extension of the works, and \$317,204 78 is invested in the sinking fund in stocks of the gas works. The total surplus up to January 1, 1850, is \$510,642 33, and the profits for the year ending

31st December, 1850, are \$57,244 07, making the grand total of surplus profits, during ten years' business on a capital of only \$770,000, amount to \$568,868 40, exclusive of the suspended debt, which is for unpaid bills for gas.

The gas works have also supplied the districts of *Spring Garden*, *Southwark* and *Moyamensing* with gas, for  $17\frac{1}{2}$  cents per 100, and \$1 75 per 1,000 cubic feet, delivered at the line of the city, the parties laying their own mains, service pipes, &c., the gas works being at no expense after having delivered the gas to their line. The statement in the report of the Special Committee, Doc. No. 78, p. 1234, that "the works in Philadelphia charge 35 cents per 100 feet to the consumers in the district of Southwark, the same price as paid here," is therefore incorrect. The undersigned is at a loss to understand how or where the Committee procured this information, for they needed only to have applied at the Philadelphia gas works, where the undersigned applied, and they would have obtained correct information.

An impression existing in the minds of the members of this Board, in consequence of a misstatement in the report of the Special Committee on Gas, Doc. 78, page 1234, to the effect that in Philadelphia, "the charge for the public lamps is \$22 50 cents each. The undersigned called at the office of the Register of the works in that city, to ascertain the truth, and was politely furnished with the following statement of

**“THE PRICE OF GAS IN PHILADELPHIA.**

From Jan. 1st, 1836, when the works were established,

to Mar. 1st, 1845, 35 cts. per 100 ft. and \$3 50 per 1000 cub. ft.

“ Mar. 1st, 1845, to Feb. 1st, 1846, 30 cts.	“ and 3 00	“	“
“ Feb. 1st, 1846, to July 1st, 1846, 28 cts.	“ and 2 80	“	“
“ July 1st, 1846, to Sept. 1st, 1846, 25 cts.	“ and 2 50	“	“
“ Sept 1st, 1848, to present time, 22½ cts.	“ and 2 25	“	“

“ A discount of five per cent. is taken from all bills for gas, if paid at the office within five days after delivery ; if not paid in ten days after delivery of the bill, the gas to be cut off for non-payment.

“ The street lamps supplied to the city were charged at \$1 75 per 1000 feet, from the commencement to the 1st June, 1848 ; from the 1st June, 1848, to March 1st, 1850, at \$1 25 cents per 1000 feet, and from March 1st, 1850, to the present time, at \$20 per annum, which is less than \$1 per 1000 feet ; the lamps burning about 7 feet per hour.

Signed,        W. FENNELL, *Register.*

PHILADELPHIA, Jan. 30, 1851.”

*See table A, at the end of this report, showing an annual comparison of the actual capital, profits, and per centage of earnings, the average rate of interest paid on stock, and the price of gas at Philadelphia gas works.*

The New York public lamps burn each three feet of gas per hour, for 2300 hours in a year. For this it is proposed to pay \$15 dollars per annum, including \$2 40 per lamp for lighting and extinguishing, which is done by

the gas company, and which, deducted, gives the actual price of the gas at \$12 60, which amounts to \$1 82 per 1000 cubic feet.

The price charged for the public lamps, in Philadelphia, is \$20 each ; add \$2 40, for lighting and extinguishing by the police, and the price of each lamp is \$22 40. These lamps are arranged to burn 7 feet of gas per hour, which, for 2300 hours, the time proposed in the New York contract, would make 16,100 feet, which, at \$22 40, is \$1 39 per 1000 feet.

From this it appears, that so far from charging a lower price for gas in New York than in Philadelphia, for the public lamps, as is claimed, the fact is exactly the reverse. Philadelphia pays \$1 39, and New York is to pay \$1 82 for 1000 cubic feet, a difference of 43 cents, or 31 per cent. more.

In Philadelphia, the public lamps are lighted many more hours than in New York. They are under the charge of the police force, and in cloudy or rainy nights, and at other times, at the discretion of the police captains of wards, they are lighted. For this excess of lighting, no charge is made, though it is probably very great, as the parties controlling find a great convenience and advantage in keeping their respective districts light in dark nights. In New York, on the contrary, the lamps are lighted and extinguished by the servants of the gas company, a party interested in consuming in the public lamps as little gas as possible—and it is notorious, that so early in the morning are the public lamps extinguished, that the police find it a difficult part of their duty to prevent and apprehend burglars and other marauders, who take advantage of an hour or two in

which the streets are left in almost total darkness, to perpetrate their outrages upon society unseen, and in comparative security. The gas company, by this close economy, saves a few thousand feet of gas per week, at the expense of the entire community, in more than one respect. This is at a time when the lamps should burn till daylight. It is also well known that during a large portion of the time, when, by the almanac, we depend upon *the moon* to light our streets, they are left in the most uncomfortable and sometimes dangerous darkness, by reason of rainy or cloudy weather, or because the houses obstruct her light when she is at a less altitude than 45 degrees. If on such occasions the public lamps are lighted, it is at a *pro rata* increase of compensation to the gas company.

The undersigned begs leave to suggest to your Honorable Body, the very great importance of a change in the arrangement for lighting the public lamps of this city, as soon as practicable. The proper lighting of our streets is one of the most important of the police measures, and it should be within the direction and control of the Police Department to light the lamps, when, by reason of darkness from any cause, they require light in the streets. It can be done cheaper by them because they are necessarily always on the ground, in their various districts, for other purposes, and being the guardians of the night, are the proper judges of the necessity of light. They would willingly, as I am led to believe, perform this slight additional duty for \$2 00 per lamp per annum, which is somewhat less than the estimated allowance for it to the gas companies, who, we have

shown, are the very least proper to be entrusted with this important duty. An account of all extra lighting should be kept by the Captain of Police for each district, to whose judgment it should be left to order extra light when required, and he should be provided with a book to record all such extra lighting, for the inspection of the gas company and the Commissioner of Streets and Lamps, to whom he might be required to make periodical reports of such extra lamp service. The undersigned is confident that the wisdom and economy of this change will be evident on trial, in many other respects, besides (to use the language of the worthy President of the Philadelphia gas works,) "aiding the municipal authorities in their police arrangements, to an extent that the inhabitants of cities imperfectly lighted can scarcely appreciate."

By comparison of the public gas lamp system of the two cities, it will appear how very much to the advantage of the community is the system and amount of payments for the lighting of the streets in Philadelphia, and how much to the disadvantage of our citizens is the system and price of such lighting here. The liberality and efficiency of their public lamp service shines forth in contrast to the inefficiency of ours, in the lower part of the city, as does the dazzling splendor of their seven feet per hour burners, in comparison with our three feet per hour jets of flame, which disclose but rarely dispel the surrounding darkness. How much superior must a seven feet light be to a three feet light ! Just so superior is their entire system to ours.

Every attention is paid to economy in the use of materials in the Philadelphia gas works, that the most judicious man-



agement can suggest. The Superintendent, John C. Cresson, Esq., who is most admirably qualified for his position, which he has occupied since the commencement of the works, was sent to Europe, in 1845, to visit the principal gas manufactories in England, Scotland and France, to ascertain what improvements in the making and storing of gas might be introduced in Philadelphia with advantage. Since his return, two large *telescopic gas holders* have been erected, greatly to the economy and advantage of the works, and a third, of still larger dimensions, is now constructing, of which Mr. Cresson, in his proposition for its erection, thus speaks :—

*“ The experience we have had in the use of two large telescopic gas holders, confirms the belief originally entertained in the economy of that form over the old plan, and that experience seems also to warrant the opinion that increased economy would attend the erection of them of still larger dimensions. The Superintendent submits a plan for one of one hundred and forty feet in diameter and seventy feet in height, with its tank, dry well, &c. This will cost about as much as three of the size lately erected, and have a cubical content equal to five of them. It will also occupy less space on the lot appropriated to gas holders, &c.”*

This has since been completed and is in use.

In the use of lime for purifying the gas, great economy is attained, as it is all made on the premises, from oyster shells, which cost nothing but their transportation, and they make nearly or quite enough lime beyond their own requirements, to sell to cover the expenses of carting the shells and its own manufacture. (See annual reports of the Philadelphia Gas works.)

In the use of fuel, great economy is also attained. The coals from which the gas is made, are placed in retorts, and the gases with which the coals are impregnated are driven off by the action of hot fires placed under the retorts. These gases are collected, condensed, washed, purified, measured, stored and finally forced through the main pipes to consumers. But the coals have been *carbonized* by the action of the heat, and have been turned to coke; a considerable proportion of coal tar, &c. This coal tar is an article of commerce, in considerable demand here at all times. But the coke is more valuable; it is used as fuel under the retorts, and a large quantity is sold yearly. The quantity produced at the Philadelphia gas works in 1848, from 365,428 bushels of coal, was 518,080 bushels; three and a half bushels of coals producing five bushels of coke. Of the coke thus made in that year, about two-thirds were used as fuel, and the rest sold or for sale. In this city it sells readily from \$4 to \$4 50 per ton, and is becoming as favorite a fuel for domestic purposes, as it is valuable for heating furnaces, &c. The best Newcastle coals produce nearly an equal value of coke after yielding the gas.

The use of the different kinds of coals for making gas, has been a subject of careful and interesting experiment for a long period. The results of these experiments are recorded from time to time in the annual reports from which these notes are taken, and show that though they were formerly obliged to depend upon the Virginia mines for their supply, yet they find the use of Newcastle and Cannel coals very much more advantageous and profitable. They have accordingly made arrangements to receive a full supply of British coals from this city, at an additional expense of sev-

enty-five cents to one dollar a ton, for carriage to Philadelphia. It is alleged on page 1235, Document No. 78, that if the companies located here were to use the soft coals used by the Philadelphia and other companies, the gas would be inferior to what it now is. Now the *fact* is, that they use the Newcastle and Cannel coals for making gas in Philadelphia, the same kind as is used here, and that it is procured from here, at an additional expense. Therefore, *it is certain that in New York gas can be made cheaper than in Philadelphia*, and the undersigned sees no reason why it should not be furnished to private consumers and public lamps, as cheap or cheaper than it is furnished there. It does not appear that they have used any considerable quantities of Pennsylvania coal, except for experiment, though in the report of your Special Committee on Gas, Document No. 78, pages 1234 and 1235, it is alleged to form their principal supply ; for purposes of argument though, in the *table* on page 1233 of same report, the *material used for gas* is stated to be Virginia chiefly. The results obtained at their works, from experiment on a large scale, they say *illustrate very forcibly the selection and proper blending of the different varieties of coal, in order to secure the best practical results.*

In the matter of waste and leakage, quoted in the report of the Special Committee, Document No. 78, page 1237, as being *estimated by several engineers, to be at least eleven per cent. for leakage, and twenty per cent. for waste.* The report of the trustees of the Philadelphia Gas Works, states the *loss from leakage and waste has fallen below two per cent., a fact which proves the almost perfect tightness of the extensive lines of mains with their numerous joints.* If such is the

fact, it is high time that this leakage and waste of thirty-one per cent. should be stopped, and their mains taken up, proved by hydraulic power, (as the Croton pipes are,) and corked with lead instead of cement, and that the citizens, (consumers,) should have the benefit of the difference.

As it is mainly in the perfection of the details of great works, that such unexampled success, as we have found in the affairs of the the Philadelphia Gas Works, can be expected to be attained. A quotation is made from an annual report of the trustees, showing the excellency of their arrangements in this respect.

“Each private consumer is supplied, out of the funds of the concern, with a service-pipe and meter, connected with the street main, and carried within the walls of his premises; and the quantity of gas burned, is determined by the meter, which is examined once in three months, for that purpose; and to prevent its getting out of repair, or registering erroneously, each meter is examined at intervals of about six weeks, by a competent agent of the trustees. The quantity of gas burned in the public lamps is ascertained, by the registering of six standard meters, placed in different parts of the city; each of these meters is connected with a public lamp; and from an average of the register of the whole of them, the quantity delivered to the city, for public lighting, is determined and charged. As an evidence of the complete accuracy of the system of the distribution, and of the perfect construction of the whole of the apparatus, it has been found that the quantity registered by the meters connected with the burners, and that gauged by the station meters at the works, corresponds

usually within from three to six per cent., the fluctuations depending upon the frequency of opening the mains, either for making further extensions of the pipes for distribution, or of connecting public or private lights with them. The trustees have a further gratification in communicating to the Councils, that by a rigid examination of the gas, made with the most delicate tests, a remarkable freedom from any noxious impurity is exhibited, and its combustion is, perhaps, the most brilliant of that furnished by any works, at present in operation.”

The above statements have been compiled to show the great perfection of the system of gas making in Philadelphia, and the constant care and great expense incurred in procuring the most suitable materials to produce a superior quality of gas. In this respect they pretend, and I believe justly, to excel any other gas works in this country, and to be equal to any in the world. It was as absurd therefore for the Special Committee on Gas to state on page 1234 of Doc. No. 78, that the gas furnished in Philadelphia is inferior to that of the New York companies, as it was incorrect for them to state on the same page, that though they pay no taxes to the city, being city works, “*the Corporation is obliged to make frequent appropriations for deficiencies, and for extending the works.*” The facts are directly the reverse of this; for we find that they pay taxes, even for their water, into the city treasury, the same as other property holders; that they have never had deficiencies or appropriations, in the sense alluded to, as will appear by the detail of their business just above presented.

In 1849, as will appear by the Superintendent’s account of expenditures, appended to this report, on pp. 534, and

535, is a charge of "1847, 50 cents for taxes and water." The fact is, that they pay for every thing they receive from the city as any other persons or parties, for the sake of keeping *a correct account of the actual cost of the gas.*

With respect to loans they use for the extension of their works, they borrow the money themselves, on the city's credit, and they are rapidly accumulating a fund, out of the surplus profits, to pay these loans, which, to a very large extent they have already effected at this time, and more than half of the whole amount of borrowed capital is provided for out of the profits.

*See table of Sinking Fund, published on page 526 of this report.*

In view of all the foregoing facts, the undersigned would respectfully recommend to your Honorable Body, that in justice to the citizens generally, and to the very large and increasing body of gas consumers in particular, the city authorities should determine the propriety of carrying out one of the following measures :

FIRST:—*To make arrangements with the New York Gas Company, under a renewal of their present contract, to place and light public lamps, in a reasonable time, in every street in their district, under such a proper and judicious arrangement as will be equitable, as well to THE PRIVATE CONSUMERS as to the public.*

If this cannot be effected, then the



SECOND :—*To make arrangements for the city to purchase of the New York Gas Company their gas works, buildings, mains and other property, belonging to the manufacture of gas. The undersigned, in so recommending, entertains no doubt that the New York Gas Company would be willing to sell their works and mains, if the city should decide to purchase them at a fair valuation ; but should they refuse to do so, then the undersigned would strongly recommend that before the expiration of the present contract, which expires May 12, 1853, the city should construct gas works of its own, and lay MAINS THROUGH ALL THE STREETS IN THE DISTRICT OF THE NEW YORK GAS COMPANY, and then either lease out the works to a party or company, who would contract to light the public lamps and furnish gas to private consumers at a fair price, or to be prepared to do it on the part of the city.*

This the city has an undoubted right to do ; for, though the terms of the present contract prevent the city, or any party other than the New York Gas Company, from lighting with gas any part of said district, yet the power and right to make preparations to do so, undoubtedly remains in the city.

If this is not so, then the contract is equivalent to a perpetual contract, which it is absurd to suppose the city intended, or had the power to make.

These works, if built or purchased, the undersigned would recommend should be paid for by the issue of city stock, &c. ; if leased, the terms should be at a rate of compensation that will pay for the loan and interest, and refund the debt in a given term of years.

This change can be effected, if it shall be so ordered, without any derangement of the business of the companies, or removal of any persons engaged in their works or offices. The improvements in their operations can be introduced gradually and without any expense to our citizens, as it is shown that they can be paid for out of the profits of the establishment, which must be immense, and fully equal to, if not exceeding the profits in Philadelphia. The advantage would be very much with us, since with our large population we could have a much larger private consumption, if the gas should be furnished at a low price and of the best quality.

It is clear that with the business already established and all the mains laid, and with such an amount of custom for gas as will pay all expenses of manufacturing and interest on the money, all additional consumers are furnished at such additional expense only as is necessary for the increased quantity of material necessary to make the increased quantity of gas; and every such additional customer increases the ability of the gas works to decrease the price of gas to the public, on a regular sliding scale of gradation, as it costs no more to send one hundred thousand feet of gas through the pipes than one thousand feet, and when the whole debt shall be refunded out of the profits—which, probably, will be before the proposed contract will expire—the only charge at that time to the public consumers will be for the materials and conducting the works for the manufacture of gas, which could then be furnished for less than one-half of what it is now furnished at in Philadelphia. This would not be the case if the business remained in the hands of private companies, and consumers would be no

better off than in the commencement, so far as funding the debts, nor would they have the benefit of any improvements that might be introduced to make gas cheaper and better.

It cannot be denied that New York is behind the improvement of the age in gas, instead of being foremost in that particular enterprise, as in every other. We are where Philadelphia was fifteen years since, paying for gas at the rate of thirty-five cents per one hundred feet; they have reduced their prices to half that amount nearly, and during the coming year probably will do so.

The city of Philadelphia, possessing undoubtedly the best and most efficient gas establishment in America, is constantly quoted by our citizens, who have inspected its gas works, as an example for our imitation and emulation; nor does the undersigned perceive any reason why the citizens of New York are not entitled to as good light as any other people, and at as low a price, or that false pride would prevent them from adopting a superior system than our own, because it originated with a neighbor; on the contrary, it will be the disposition, and undoubtedly the determination of our citizens, not only to imitate, but to improve upon the system of Philadelphia, if possible.

The enlightened citizens of New York need only to be fully informed of the operation of the gas system of Philadelphia, to perceive at once the advantages it presents in the place of the evils we now have to submit to, which need not to be stated, as they are but too well known,

having been a subject of constant complaint for many years.

*The undersigned now begs to present to this Board more particularly the chief reasons, why he could not, with regard to the true interests of the city, accede to the conditions of the contract reported by the majority of the Committee.*

FIRST.—Because it makes no sufficient arrangement for dispensing with the use of the present oil lamps, the expense of which is almost an entire waste of the people's money, nor for the lighting of all the streets in a reasonable time with gas, though the alledged reason for making the contract at all is, that the *streets shall soon be lighted*.

The district comprised in the contract with the New York Gas Company, is that part of the city south of Grand street. The contract will oblige the company to light West and South streets within the year, but it obliges them to proceed with laying of their mains, only, to the extent of \$10,000 a year.

Now, to complete the lighting of this district, it will require more than seventeen miles of mains to be laid, of various sizes, averaging five inches, and costing more than \$8,000 per mile, and upwards of \$136,000 for the entire distance. The report of the majority Doc. 24, p. 252, states that the condition that \$10,000 shall be expended for laying mains, provides for completing the lighting of that district "in the course of two years," but the above shows that at that rate it will require *more than thirteen years and a half !*

SECOND.—Another reason why the undersigned is opposed to and refuses to concur in the report of the Special Committee, reciting the terms of the new contract to be made with the New York Gas Company, is, that *article 8* of those terms is objectionable, and calculated to mislead and deceive your Honorable Body, as well as the public, in respect to its practical bearing.

Said article 8 pretends to deprive the gas company of the possession of any monopoly of the business of lighting their district with gas, by allowing any other parties or companies to lay pipes and light buildings in competition with them, which privilege the old contract does not give.

Now let us see how this competition works practically.

Suppose parties should apply to the Corporation for permission to *dig up the streets* to lay their pipes, would not the gas company and their friends and agents exert a most powerful influence to induce the authorities to consider it unnecessary and improper, on the ground that one set of pipes was enough ; that the inconvenience to the public was too great to justify it ; and the application would very probably be denied.

But suppose a party or company should obtain permission, lay their pipes, and commence supplying the gas at a lower price than the old company, the latter would undoubtedly reduce the price to consumers in that part of their district, as they could well afford to do, and have a right to do, and thus deprive the new company of customers, and eventually either ruin them, or compromise by buying them off, and then immediately put up their prices to the

old rates or higher. They could afford to buy their pipes, and allow them to rust out under ground. It would operate practically like two steamboats running in opposition at very low prices ; as soon as one is bought off by payment of a bonus, the rate is raised again on the public, and probably enough higher than the old rates to pay for the bonus.

The only practical benefit that could arise from this new contract would be but partial, as, for instance, in the case of a large hotel manufacturing gas for its own use, on its own premises, which might afford to supply its immediate neighbors on low terms ; but the public at large could derive no practical benefit from it.

The undersigned trusts that these illustrations show that article 8 of the contract operates as a *délusion*, by pretending to permit competition, where no sane man would entertain for a moment the idea of competing.

THIRD. Another reason why the undersigned could not concur in or sign the report of the majority, is that it makes no provision to require the gas company to furnish gas to private consumers at fair and equal prices, or to protect them in any way against abuses on the part of the company. The terms of the contract, as presented, continue practically the monopoly of the furnishing of gas to private consumers, as shown on page 519 of this report, and it leaves to the company the right to raise or to lower its prices to such consumers, or to vary their prices in different parts of the district. To this the undersigned cannot in duty consent. The rights of private consumers are entire -



ly overlooked, and they are thus left to the tender mercies of the gas company. He thinks it is the duty of the authorities to guard the rights of the private consumer with quite as much solicitude as they show for the lighting of the public lamps.

FOURTH. Another reason why the undersigned cannot sign the report of the majority, is that article second of the terms therein, provides that the gas company shall receive fifteen dollars per annum, "for the light, lighting and extinguishing" of each public lamp; whereas, on page 1235 of the first report of the same Special Committee, Doc. No. 78, it is stated :—

"This is below the cost of the article, even if procured from the most inferior coal, either in the United States or England, being at from eighteen to twenty-one cents per hundred cubic feet, including the cost of cleaning, lighting and extinguishing the lamps."

If this is true, the private consumers will be obliged to pay the difference, which should be paid by the public treasury. All citizens being equally benefited by the lighting of the public streets, is it just to tax private consumers with a portion of the expense? Were this principle correct, thus adopted by the majority of the Committee, it would be proper to make the contract for lighting the public lamps for nothing, which the gas company can well afford to do, at the present prices. Such a sacrifice of the rights of his fellow citizens can never be consented to by the undersigned, however anxious he may be to see the streets properly lighted; nor will he consent to any con-

tract with the gas company, except on conditions which shall protect the private consumers from the abuses they now so loudly and so justly complain of.

The undersigned begs to remark, in conclusion, that the objects he had in view in extending his labors to embrace the mass of facts he has embodied in this report, have been to justify himself in the position he has assumed of opposition to the renewal of the contract on the terms proposed in the report of the majority of the Special Committee, and to present reasons for insisting on some judicious arrangement, by which the district included in the contract of the New York Gas Company, shall be effectually lighted with gas, under the following conditions, viz :

FIRST : That *all the streets* shall be lighted with gas, as soon as practicable, as the interest of our citizens and the protection of property require.

SECOND: That in so doing, the rights of *private consumers* of gas, hitherto entirely overlooked, shall be reasonably protected.

All which is respectfully submitted.

DANIEL DODGE,  
*Of Special Committee.*

TABLE A.

*Showing an annual comparison of the actual capital employed in the Philadelphia Gas Works, the surplus profits on the same, the per centage of surplus profits, per centage paid on loans, and the total per centage of net earnings, together with the comparative price of gas, from 1842 to 1849, inclusive.*

	Capital Stock each year.	Price of Gas each year per 100 ft.	Surplus profits each year, after paying interest on loans, materials, and making Gas, and repairs.	Per centage of sur- plus profit each year.	5 and 6 p. c. int. on loans, average- ing over 5½ p. c.;—(See Sinking Fund ta- ble.)	Total per centage of net earnings each year.
1842.....	\$524.000	35 c.	\$52.610 86	10 per cent.	5½ p. c.	15½ p. c.
1843.....	540.900	35 c.	52.418 77	9 <sup>8</sup> / <sub>10</sub> "	"	15 <sup>3</sup> / <sub>10</sub> "
1844.....	540.900	35 c.	60.692 30	11 <sup>2</sup> / <sub>10</sub> "	"	16 <sup>7</sup> / <sub>10</sub> "
1845.....	600.000	35 and 30 c.	55.916 90	9 <sup>3</sup> / <sub>10</sub> "	"	14 <sup>8</sup> / <sub>10</sub> "
1846.....	600.000	30, 28 & 25 c.	51.628 37	8 <sup>1</sup> / <sub>10</sub> "	"	14 <sup>1</sup> / <sub>10</sub> "
1847.....	600.000	25 c.	70.917 35	11 <sup>8</sup> / <sub>10</sub> "	"	17 <sup>3</sup> / <sub>10</sub> "
1848.....	600.000	25 and 22½ c.	62.178 35	10 <sup>4</sup> / <sub>10</sub> "	"	15 <sup>9</sup> / <sub>10</sub> "
1849.....	670.000	22½ c.	64.792 19	9 <sup>7</sup> / <sub>10</sub> "	"	15 <sup>2</sup> / <sub>10</sub> "

*The following tables are copied from the fifteenth annual report of the Trustees of the Philadelphia gas works, to the Select and Common Councils of the city of Philadelphia, for the year 1849.*

### CASH ACCOUNT.

DR.

Balance on hand, January 1st, 1849..... \$27,191 54

### RECEIPTS IN 1849.

For Interest on City Loans.....	4,163 50
Sales of Gas.....	246,697 11
Extra Service Pipes and Meter-cocks....	5,491 55
Coke.....	8,834 82
Coal Tar.....	814 45
Lime.....	2,298 17
Coal .....	20 00
Old materials.....	95 62
Rent of Wharf .....	130 00
Station Meter sold to Louisville Gas Com.	503 80
Rent of Office and Cellar.....	70 00
Sales of Loan 5th.....	20,300 00
Do. do. 6th.....	100,000 00
Premiums on sales of Loans 5th and 6th .	2,375 55
	<hr/>
	\$418,986 11

CR.

## PAYMENTS IN 1849.

For construction and enlargement of the works	\$47,323	26
The extension of the Street Mains.....	45,354	78
Service Pipes and Meters.....	22,612	79
Coal and other materials used in the man-		
ufacture of gas, wages of workmen, &c.	171,214	40
Repairs of the Works, Street Mains, &c.	20,559	06
Incidental Expenses.....	29,823	07
Salaries.....	5,300	00
Interest on Loans.....	27,154	99
Investments on account of Sinking Fund,	28,904	00
Wharf Lot on the Schuylkill.....	3,700	00
Interest on mortgage on do., and arrears		
of rent.....	130	85
Balance on hand, Jan. 1st, 1850.....	16,908	91
	<u>\$418,986</u>	<u>11</u>

## STATE OF THE WORKS JANUARY 1, 1850.

## ASSETS.

Works.....	\$357,479	02
Street Mains.....	356,573	82
Service Pipes and Meters.....	159,138	60
Public Lamps.....	11,814	02
Cash.....	16,908	91
Suspended Debt.....	1,862	50
Stocks belonging to Sinking Fund at cost....	297,560	50
Coal on hand, 332,700 bushels, at 20 cents..	66,540	00
Forward,.....	<u>\$1,267,877</u>	<u>37</u>

Brought forward.....	\$1,267,877	37
Coke on hand, 84,000 bushels, at 3 cents ....	2,520	00
Rosin on hand, 2800 barrels, at \$1.....	2,800	00
Due for Gas sold and delivered, and on hand.	68,996	00
Due for Coke, Tar, &c.....	2,000	00
Interest on City Loans, due Jan. 1, 1850.....	2,070	50
Wharf Lot on the Schuylkill.....	3,700	00
	<u>\$1,349,963</u>	<u>87</u>

## LIABILITIES.

Loans 1, 2, 3, 4, 5 and 6.....	\$770,000	00
Dividends unpaid.....	405	00
Interest on Gas Loans, including that due Jan. 1st, 1850.....	16,826	96
For Coals, repairs and materials used in the manufacture of Gas.....	51,089	58
Sinking Fund.....	317,204	78
Contingent Fund.....	192,575	05
Profit and Loss (amount of Suspended Debt).	1,862	50
	<u>\$1,349,963</u>	<u>87</u>

STATEMENT OF THE SINKING FUND FOR THE  
YEAR 1849.

1849.

Jan'y 1, Amount of Sinking Fund this day...	\$281,864	84
Forward,.....	\$281,864	84



Brought forward..... \$281,864 84

Increase of Sinking Fund in the year  
1849 :

June 30, 6 months' interest on \$112,500 Gas	
Loans at 6 per cent.....	3,375 00
6 months' interest on \$87,000 Gas	
Loans at 5 per cent.....	2,175 00
6 months' interest on \$25,600 City	
Loans at 6 per cent.....	768 00
6 months' interest on \$52,100 City	
Loans at 5 per cent.....	1,302 50
6 months' appropriation of 2 per ct. per ann. on \$475,000 of Loans 1, 2 and 3.....	4,750
3 per. ct. per ann. on \$125,000	
Loan 4.....	1,875
4 per ct. per ann. on \$69,000	
Loan 5.....	1,380
4 per ct. per ann. on \$24,000	
Loan 6, for 1 month.....	80
	<hr/> 8,085 00
Dec. 30, 6 month's interest on \$127,600 Gas	
Loans at 6 per cent.....	3,828 00
6 months' interest on \$87,000 Gas	
Loans at 5 per cent.....	2,175 00
6 months' interest on \$25,600 City	
Loans at 6 per cent.....	768 00
6 months' interest on \$52,100 City	
Loans at 5 per cent.....	1,302 50
Forward.....	<hr/> \$305,643 84

Brought forward.....	\$305,643 84	
6 months' appropriation of		
2 per ct. per ann. on \$475,000		
Loans 1, 2 and 3.....	4,750	
3 per ct. per ann. on \$125,000		
Loan 4.....	1,875	
4 per ct. per ann. on \$170,000		
Loans 5 and 6.....	3,400	
	<hr/>	10,025 00
Premium on sales of Loans 5		
and 6....	2,375 55	
Less, the interest from 1st		
July, 1849, from which		
time the Loans bore in-		
terest to the time when		
the certificates were is-		
sued .....	839 61	
	<hr/>	1,535 94
		<hr/>
		\$317,204 78

The amount invested is as follows :

Jan'y 1, Cost of Investments at this date....	\$268,656 50	
12, For \$13,200 Gas 6 per cent. Loan 5,		
at par.....	13,200 00	
Oct. 16, For \$1000 Gas 6 per cent. Loan 5, at		
4 per cent. premium.....	1,040 00	
For \$14,100 Gas 6 per cent. Loan 6,		
at 4 per cent premium.....	14,664 00	
	<hr/>	\$297,560 50
1850.		
Jan'y 1, Balance not invested.....	19,644 28	
	<hr/>	\$317,204 78

# CITY AND GAS LOANS BELONGING TO THE SINKING FUND.

## Five per cent. City Loans :

Redeemable in 1851.....	\$600
1854.....	700
1855.....	600
1856.....	300
1857.....	2200
1858.....	7100
1859.....	4000
1861.....	1100
1862.....	1000
1863.....	300
1864 .....	1400
1866.....	1000
1867.....	7100
1870.....	9700
1871.....	5200
1872.....	7300
1873.....	2200
1874.....	300
	<hr/>
	\$52,100 00

## 6 per cent. City Loans :

Redeemable in 1876..... 25,600 00

## 6 per cent. Gas Loan No. 1 :

Redeemable in 1862.....\$10,300

## 6 per cent. Gas Loan No. 2 :

Redeemable in 1863..... 36,700

## 6 per cent. Gas Loan No. 3 :

Redeemable in 1861..... 30,400

Forward,.....	...	\$77,400	77,700 00
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Brought forward,.....	\$77,400	\$77,700 00
6 per cent. Gas Loan No. 5 :		
Redeemable in 1868.....	36,100	
6 per cent. Gas Loan No. 6 :		
Redeemable in 1869.....	14,100	
	<u>          </u>	127,600 00
5 per cent. Gas Loan No. 4 :		
Redeemable in 1866.....	87,000	00
	<u>          </u>	
The cost of the above was.....	\$297,560	00

# STATEMENT OF THE PROFIT AND LOSS AC- COUNT FOR THE YEAR 1849.

1849.

Jan'y 1, Amount due for Coals, materials and pairs, chargeable to the manufac- ture of Gas.....	\$66,786 77
Dec. 31, Sales of Gas in 1849.....	246,697 11
Sales of a Station Meter to Louisville Gas Company .....	503 80
Sales of Coke.....	8,834 82
" of Tar .....	814 45
" of Lime.....	2,298 17
" of Coal....	20 00
" of Old Materials.....	95 62
Rent of Wharf.....	130 00
Rent of Office and Cellar.....	70 00
Premium on Sales of Loans.....	1,535 94
Interest to the time when the Loans were sold.....	839 61
Forward,.....	<u>\$328,626 29</u>

Brought forward,.....	\$328,626 29
Stock on hand, January 1, 1850 :	
Coal .....	66,540 00
Coke.....	2,520 00
Rosin.....	2,800 00
Gas delivered.....	68,996 00
Due for Coke, Lime, Tar, &c.....	2,000 00
Suspended Debt.....	1,862 50
	<hr/>
	\$473,344 79

Jan'y 1, Amount of Stock on hand and debts due to the Works at this date ....	\$102,545 19
Dec. 31, Payments during the year, and other charges against the manufacture of Gas :	
Coals and other materials and wages,	171,214 40
Repairs.....	20,559 00
Incidental charges.....	29,823 07
Salaries.....	5,300 00
Interest on Mortgage on Wharf Lot.	69 00
Arrears of rent due by tenant of do.	61 83
Premium on sale of Loans appropri- ated to the Sinking Fund.....	1,535 94
Appropriation to the Sinking Fund, as directed by Ordinances.....	18,110 09
Interest on Loans for the year 1849.	42,040 00
Amount due January 1, 1850, for Coals, repairs and materials used in the manufacture of Gas.....	51,089 58
Suspended debt, January 1, 1849...	1,544 35
Balance.....	29,452 35
	<hr/>
	\$473,344 79

The above balance of.....	\$29,452 35
Less the sum of.....	318 15

The difference between the amount of the Suspended Debt, Jan. 1, 1849, and Jan. 1, 1850, gives the net in- crease of the Contingent Fund for 1849 .....	\$29,134 20
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### STATEMENT OF THE CONTINGENT FUND FOR 1849.-

Amount of the Fund, January 1, 1849.....	\$163,440 85
Increase during the year, as per profit and loss account.....	29,134 20
	<u>\$192,575 05</u>

The amount provided by various Ordinances  
for the construction and enlargement of the  
works, and for extraordinary repairs and re-  
newals, has been, to Jan. 1, 1850 :

Loans 1, 2, 3, 4, 5, 6.....	\$770,000 00
Contingent Funds, raised from profits,	192,575 05
	<u>\$962,575 05</u>

The amount expended has been :

Construction of Works.....	\$357,478 02
Street Mains.....	356,574 82
Service Pipes and Meters.....	159,138 60
Public Lamps .....	11,814 02
Wharf Lot on the Schuylkill.....	3,700 00
	<u>\$888,705 46</u>
Balance unexpended .....	73,869 59
	<u>\$962,575 05</u>



The liabilities of the works for the objects to which the above Fund is applicable, are as follows :

Construction of Works.....	\$7,500 00
Street Mains, Service Pipes and Meters	51,000 00
Total.....	<u>\$58,500 00</u>

## 1849.—SUPERINTENDENT'S ACCOUNTS.

WORKS.	STREET MAINS.	SERVICES.
Wages of laborers and fitters employed in erecting new works..\$4013 13	Wages of men employed in laying mains in streets\$11004 60	Wages of men engaged in laying service pipe and setting and fitting up meters\$3351 50
Castings .....17520 23	Pipes and castings 23279 94	Meters.....11571 63
Gas holder.....10000 00	Lead ..... 6891 43	Tubing ..... 2878 63
Wharf..... 2232 46	Carting..... 1881 43	Stop-cocks..... 2241 27
Fire bricks..... 2041 07	Paving..... 1685 17	Paving ..... 1064 60
Bricks..... 1825 50	Chandlery..... 305 57	Lumber..... 490 24
Bricklaying ..... 1411 28	Lumber..... 145 02	Castings..... 427 72
Flagging..... 1251 81	Stop-Cocks..... 71 25	Lead pipe and rin. 355 78
Lumber..... 1822 17	Iron..... 51 65	Iron..... 148 17
Slating ..... 1115 38	Turning plugs.... 29 35	Gas Fixtures..... 83 00
Coal Elevator.... 726 74	Gas bags..... 9 37	
Stone..... 799 06		
Iron, Steel and nails..... 698 59		
Mason work..... 570 13		
Lead pipe and tubing..... 343 62		
Lime and cement.. 221 00		
Sand and loam... 218 23		
Painting..... 157 00		
Window frames & Glass ..... 96 78		
Plastering..... 68 90		
Casting ..... 61 50		
White Lead..... 61 78		
Legal services.... 50 00		
Riggers and spars. 16 00		
Total.....\$47323 26	Total.....\$45354 78	Total....\$22612 79

## 1849.—SUPERINTENDENT'S ACCOUNTS.

GAS.	REPAIRS.	INCIDENTALS.
Wages of stokers, &c., employed in retort house and purifying house, manufac- turing gas, and wheeling coals. \$31567 79	Wages of carpent- ers, blacksmiths, fitters and labor- ers engaged in repairs of works, street mains, and services.....\$6954 79	Wages of men em- ployed in inspect- ing fittings and meters, taking statements for bills, in care of public lamps, storing coals and coke, clerk hire; measuring coke and lime and other incidental matters not ap- pertaining to other specified heads.....\$19935 50
Coals.....100407 09	Castings.....7405 45	Rents.....3168 75
Freight on coals. 18721 74	Meters.....2484 75	Taxes and water.. 1847 50
Rosin.....8981 68	Fire bricks.....1313 53	Hose.....687 41
Measuring & cart- ing coals.....	Hardware.....636 69	Stationery and printing.....603 35
Lime and shells.. 4226 70	Iron.....520 07	Furniture, &c.... 520 31
Brokerage, insur- ance and duties 1169 79	Paving and Brick laying.....317 39	Chemicals.....476 79
	Paints and painting 216 17	Alcohol.....449 78
	Lime and hair.... 147 31	Services of fire companies at fire, 1845.....250 00
	Bricks.....133 54	Subscription and advertising.....143 39
	Lumber.....101 83	Horse keep.....113 24
	Wheelwright work 65 23	Barrels.....112 25
	Hose.....60 00	Carting.....70 07
	Oil.....49 64	Brooms, &c.....65 59
	Mill boards.....35 55	Tubing.....45 50
	White lead.....30 80	Reports of lighting 48 00
	Loam.....24 68	Drawing deeds.... 39 37
	Leveling rod, tar- get, &c.....17 75	Appropriation of trustees by order of councils to Ro- sanna Farren... 35 00
	Tallow.....18 24	Hand cart.....19 00
	Leathering bellows 12 50	Oil.....16 38
	Sand.....12 00	Muslin.....14 49
	Willowing frames. 2 25	Buckets, &c.....12 75
		Miscellaneous ex- penses of offices, postages, &c.... 1098 66
Total....\$171,214 40	Total.....\$20539 06	Total.....\$29823 07

## CITY REGISTRY.

Date.	Applica- tions.	Removals, Discontin- uances.	Private Lights.		Public Lights.		
			Added.	Total.	Streets.	M. H.	Sq'res.
1849.							
To Jan. 1st.	13523	6395		76412	1318	37	62
January.....	140	92	703	77115			
February.....	120	83	595	77710			
March.....	148	93	874	78584	2		
April.....	165	80	891	79475	25		
May.....	207	106	1373	80848	11		
June.....	137	83	1216	82064	2		
July.....	127	76	850	82914	9		
August.....	203	107	1741	84655	8		
September.....	260	133	2598	87253	12		
October.....	267	114	2960	90213			
November.....	224	113	2251	92464	1		
December.....	193	100	1998	94462	4		
Total.....	2191	1180	18050		74		
Brought down.	13523	6395			1318	37	62
Grand total...	15714	7575		94462	1392	37	62

## REGISTRY OF THE DISTRICTS.

	Private Lights.	Public Lights	M. H.
Spring Garden.....	12330	184	
Southwark.....	2051	57	7
Moyamensing .....	.....	9	
Totals.....	14381	250	7

## REGISTRY OF METERS.

DATE.	SERV- ICES LAID.	METERS SET								PUBLIC LANDS.		
		3 light	5 light	10 light	20 light	30 light	45 light	60 light	100 light	On posts.	On wall.	Market houses.
1849.												
To Jan'y 1st.	7130	3892	1959	1042	157	44	22	4	10	1134	184	37
January.....	49	22	16	10	1							
February.....	41	21	10	4	4			1	1			
March.....	54	22	19	10	2	1				2		
April.....	86	33	25	24	4					22	3	
May.....	102	29	44	22	6			1		7	4	
June.....	56	21	16	17	2					1	1	
July.....	51	22	15	13	1					8	1	
August.....	98	27	34	32	3		2			8		
September....	129	46	42	34	7					12		
October.....	156	33	68	42	8	3	2					
November.....	112	50	42	14	4	1			1	1		
December.....	95	40	35	12	4	2	1		1	2	2	
Total.....	1029	366	366	234	46	7	5	2	3	63	11	
Brought down.	7130	3592	1959	1042	157	44	22	4	10	1134	184	37
Grand total...	8159	4258	2325	1276	203	51	27	6	13	1197	195	37

## REGISTRY OF MAINS.

DATE.	MAIN PIPES LAID IN STREETS, LINEAL FEET.										
1849.	1½ inch.	2 inch.	3 inch.	4 inch.	6 inch.	8 inch.	10 inch.	12 inch	16 inch	20 inch	Total.
To Jan. 1st	426	59916	178591	112282	32431	11898	10058	10881	2340		418823 or 79½ miles.
January...											
February..											
March.....		1542	18	459		441					2460
April .....		2430	2133	441							5004
May.....		264	1422	261	1494	387					3828
June.....		282						900	1260		2442
July .....		66						234	1251		1551
August....		4500	882	1242		954	2124	261	1143		8982
September.			441		81	495	2142	1215	4419		8775
October...		312	2871	1611	1269	1656		9		495	8223
November.		192	1098	1710	72	3546					8760
December..		102	252		18	5805					6177
Total...		9690	9117	5724	2934	13284	4266	2619	8073	495	56202
Bt. down..	426	59916	178591	112282	32431	11898	10058	10881	2340		418823
Gd. to'al .	426	69606	187708	118006	35365	25182	14324	13500	10419	495	475025*

\* Or nearly 90 miles.



## REPAIRS OF SERVICES.

1849.	Stop-cocks renewed.	New covers for Stop-cock boxes.	Services renewed.	New Stop-cock boxes.
January...	1	1		
February..		8	1	
March ....		16	5	3
April.....	2	13	3	6
May.....	4	8	2	3
June .....	2	5	1	3
July.....	1	2	2	1
August....	3	7		4
September..	6	3	4	1
October....	5	2	2	
November .	5	3	7	4
December..				
Total...	33	68	27	25

## STATEMENT OF GAS PAID FOR IN EACH MONTH OF THE YEAR.

1849.	Cubic feet.	Private consumption.	Public Lamps.	Spring Garden.	Southwark	Moyamensing.
January ....	13729000	11054100		2674900	.	
February ...	9320400	9320400				
March .....	15680600	8783700	6896900			
April .....	12315900	10142300		2476500	186300	10300
May .....	7404400	7404400				
June .....	13323800	7601400	5722400			
July .....	8799100	6513400		1866000	371300	48400
August .....	4362900	4362900				
September ..	8847250	4271100	4576150			
October .....	8702700	5934700		2133200	573100	61700
November...	7466100	7466100				
December...	17219300	9888800	7329500			
	127671450	92744800	24524950	9150600	1130700	120400
		24524950		1130700		
		10401700		120400		
		127671450		10401700		

## STATEMENT OF GAS DELIVERED TO PUBLIC AND PRIVATE LIGHTS IN EACH YEAR.;

Year.	Public Lights.	Private Lights.	Spring Garden.	Southwark.	Moyamensing.	Used at offices, shop and works, and loss by leakage, &c.	Made at Works.
1836..	978812	4752740				749748	6481300
1837..	1397687	14454891				1226122	17078700
1838..	3013546	22366004				1977450	27357000
1839..	6280654	30658145				2534201	39473000
1840..	8028818	34874380				2506820	45410000
1841..	10208180	39648000				1415820	51272000
1842..	13292000	36596830				922170	50811000
1843..	12985351	34579900				1324249	48890000
1844.	13608356	40022800				1152844	54784000
1845..	17373798	46702530				926402	65003000
1846..	19164106	55219800	163400			906694	75454000
1847..	19122293	68071600	2507100			1846007	91547000
1848..	19924700	78921350	6817000			1109950	106773000
1849..	24524950	96247100	10713200	2322800	195800	1505150	135509000
			20200700	2322800	195800		815843000

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